CHAPTER 15

Towards Data Justice Unionism? A Labour Perspective on AI Governance

Lina Dencik

Introduction

The advent of data-centric technologies has in recent years culminated in the hype surrounding 'Artificial Intelligence' (AI), widely seen to propel transformations across areas of science, government, business and civil society. These transformations are often simultaneously touted as enhancing forms of efficiency and better decision-making at the same time as presenting significant societal challenges. The question of jobs and the changing nature of work has been one prominent area where AI is said to have dramatic implications. Workers are subjected to evermore data collection about not just their activities at work, but beyond factors related to work. At the same time, machine learning systems are using this data to transform how work is being allocated, assessed and completed. Often it is these two components – data collection and machine learning – that is referred to under the banner of AI (Sánchez-Monedero and Dencik 2019). This has a profound impact on workers' lives, the nature of jobs and the economy. Moreover, the position of labour in relation to AI brings to light the social stratifications embedded within and created by the advancement of AI across social life. AI extends long-standing debates on modes of capitalism that significantly shape the circumstances of working people whilst limiting their ability to influence decisions that govern their lives.

How to cite this book chapter:
Dencik, L. 2021. Towards Data Justice Unionism? A Labour Perspective on AI Governance. In: Verdegem, P. (ed.) *AI for Everyone? Critical Perspectives.* Pp. 267–284. London: University of Westminster Press. DOI: https://doi.org/10.16997/book55.o.
License: CC-BY-NC-ND 4.0

Yet, in advancing governance frameworks that may contend with the challenges of data infrastructures and AI, there has been a notable absence of worker voices, unions and labour perspectives. Labour concerns have predominantly focused on the immediate threat of job losses and changing forms of work, but these have rarely been translated into AI governance debates more broadly. Instead, we have seen governance frameworks emerge that centre on questions of individual rights, data protection, ethics and fairness, privileging citizen and consumer rights over workers' rights. These frameworks tend to engage at a level of abstract principles that centre on the nature of technology rather than the conditions of injustice in which technology is situated, and struggle to account for AI as an outcome of power dynamics and interests that serve to shape social relations. The absence of labour perspectives within these debates, and voices that extrapolate from workplace struggles to a wider engagement with AI in the context of advanced capitalism, is therefore a significant gap in the context of what we might refer to as data justice; an understanding of datafication in relation to social justice (Dencik, Hintz and Cabel 2016).

In this chapter, I argue for the need for 'data justice unionism', a form of social justice unionism that engages with data-centric technologies as firmly situated within a workers' rights agenda and that approaches AI governance as informed by the labour movement in solidarity with other social movements. I start by briefly outlining how AI relates to issues of labour before going on to discuss a range of dominant frameworks for AI governance. These have tended to exclude broader labour concerns and often frame what is at stake with AI in terms of trade-offs between economic gains and individual rights that bypass an engagement with collective rights and more fundamental questions about the political economy of AI. I then go on to discuss key issues in AI that a labour perspective foregrounds, in the workplace and beyond, before situating these in relation to data justice unionism. As a component of social justice unionism that argues for unions working in coalition with other social movements to advance a more just society, data justice unionism makes an explicit connection between digital rights and socio-economic rights and contends with AI in the context of labour relations under capitalism. This needs to inform much more of current mobilisation efforts around data justice in order to, on the one hand, elevate the relevance of the labour movement, and, on the other, for AI governance debates to better account for lived experiences and actual social struggles.

Labour and AI

The implications of the advent of AI for labour and labour relations has garnered much attention in recent years, building on long-standing debates on the transformative potentials of emerging technologies. Whilst some have argued that the rapid development of data-centric technologies signal a fundamental

shift in the operations of capitalism, others have focused on how these technologies entrench or extend particular features of capitalism that significantly impact on the nature and experiences of work. It is not the aim to discuss these different perspectives in detail here, but it is worth briefly outlining some of the ways in which labour concerns manifest in understandings of AI in order to understand their significance for AI governance debates. At one level, these concerns are often focused on the changing nature of the workplace itself and how the implementation of AI systems impact on employment relations and working conditions. Algorithmic management of the kind associated with the gig economy, for example, is rapidly becoming embedded within larger parts of the labour market, stretching across different kinds of workplaces (Kellogg et al. 2020). Devices and tools such as phones, laptops and emails are subject to monitoring, whilst data extracted from social networks, shared calendars and collaborative working tools are being integrated to gain insights into not only professional activities, but also who workers are or what they might do in the future. More and more, this is being complemented by sensory and recognition tools such as chips and wearables that dictate tasks and assess emotional and physical states as part of work performance (for an overview of data-driven technology in the workplace see Sánchez-Monedero and Dencik 2019). Based on this perpetual generation of data within and beyond the workplace, AI systems promise to automate key aspects of the labour process and management techniques. For some, these developments continue a trajectory of automation that has long been seen as a threat to labour in different ways, moving beyond the production process of the industrial era to also include information processing and decision-making (Andrejevic 2019). Key concerns have been raised about how the use of AI technologies in the workplace might displace jobs, impact on workers' rights and undermine labour power (Moore, Upchurch and Whittaker 2017).

Moreover, engagement with the AI-labour nexus has provided impetus for the on-going debate on the implications of emerging technologies for transformations in capitalism. Early accounts of the advent of information and communication technologies (ICTs), for example, indicated a significant shift in the relationship between capital and labour and emphasised value extraction outside of production as the principal location of the process of valorisation. Notions such as 'immaterial labour' and 'cognitive capitalism' (Moulier Boutang 2011) point to an elevated significance of knowledge, information and intellectual property over labour as traditionally understood in operations of capital that, for some, promises new visions of 'post-capitalism' (Mason 2016) and the possibilities for a 'world without work' (Srnicek and Williams 2016). Whilst these accounts have been criticised for lacking sound empirical basis and often underestimating the continued centrality of production and extraction of value from labour in supply chains (Thompson and Briken 2017), they point to particular processes in capitalism that have found resonance in more recent accounts of the value of data and the political economy of data-centric technologies such as AI.

In Zuboff's (2015, 2019) notion of surveillance capitalism, for example, value generation relies not on a division of labour, but a division of learning: between those who are able to learn and make decisions based on global data flows, and those who are (often unknowingly) subject to such analyses and decisions. In this model, capital moves from a concern with incorporating labour into the market as it did under previous forms of capitalism, to a concern with incorporating private experiences into the market in the form of behavioural data. This is an accumulation logic driven by data that aims to predict and modify human behaviour as a means to produce revenue and market control. Yet in thinking about the value of data and the social relations that emerge from its extraction, Sadowski (2019) argues that we need to understand it not just as a commodity but as capital that propels new ways of doing business and governance in what he sees as the 'political-economic regime' of datafication. Data collection is driven by the perpetual cycle of (data) capital accumulation, which in turn drives capital to construct and rely upon a universe in which everything is made of data. The digital platform is central for this transformation in that social practices are reconfigured in such a way that enables the extraction of data (Couldry and Mejias 2018). Data in this context serves to sustain an economic process that relies on capturing value through expanding the capacity for gaining information rather than creating value through production. This process does not break with how we might understand capitalism, but rather positions datafication as the extension of financialisation and the drive to turn everything into a financial asset. The aim is to latch onto circuits of capital and consumption for the purposes of rent extraction, whether in monetary form or as data (Srnicek 2017; Sadowski 2020).

The role of labour, under these conditions, is characterised by what Van Doorn and Badger (2020) call 'dual value production': the monetary value produced by the service provided is augmented by the use and speculative value of the data produced before, during, and after service provision. As they go on to explain, the value of data derives in part from its expected or actual practical utility (achieving functional goals and systems optimisation) but also from the expectation of data-rich companies to achieve competitive advantage and thereby attracting venture capital and higher financial valuations. AI is part of a suite of complex technologies that have been designed to extend and empower capital's abilities of assetisation, extraction and enclosure (Sadowski 2020) and that is rooted in the positive feedback loop between a data-producing labour process and algorithmic systems that self-optimise as they analyse this data (Van Doorn and Badger 2020). For Wark (2019), this constitutes a power shift from the owners of the means of production to the owners of the vectors along which information is gathered and used, what Wark describes as the 'vectorialist class'. This class controls the patents, the brands, the trademarks, the copyrights, and most importantly the logistics of the information vector. As such, Wark contends, whilst a capitalist class owns the means of production, the means of organising labour, a vectorialist

class owns the means of organising the means of production. Importantly, this does not necessarily make away with the exploitation of labour in value chains. As Srnicek (2020) has pointed out, AI systems rely not just on vast amounts of data, but on significant computational power and control over labour to drive monopolisation. We have a growing economy based on what Gray and Suri (2019, ix) refer to as 'ghost work': a new digital assembly line that aggregates the collective input of distributed workers, ships pieces of projects rather than products, and operates continuously across a host of economic sectors in order for AI systems to function.

The implications of AI for labour therefore extend from the workplace to the reorganisation of employment through to the operations of capital upon which AI depends and advances. The use of AI in automated hiring systems, performance assessment tools, scheduling, and other forms of algorithmic management in the workplace (platforms or otherwise) intersect with broader transformations in the economy and dynamics of capitalism in which developments in AI are embedded. These different concerns highlight the many complex and intricate ways AI impacts on the experiences of working people, the way their work is organised and how it is valued, and their ability to influence decisions that govern their lives. Yet, as I will go on to outline below, workers' voices and union perspectives have been notably absent from AI governance debates that have instead overwhelmingly championed liberal frameworks based on citizen and consumer rights. If we are to contend with AI in relation to the advancement of a more just society, then such frameworks are insufficient.

Governing AI

The advent of AI has sustained much discussion about what is actually at stake with the growing datafication of social life. Whilst there is widespread recognition that the rapid development and deployment of data-centric technologies has significant transformative implications, the question as to what these are and how they should be addressed is still up for grabs. Gangadharan (2019) has provided a useful overview of different frameworks for data governance that highlights some of the dominant ways in which AI and data-driven systems in general have been approached in governance debates, including privacy policy, data protection, ethics, fairness-in-design and human rights. Elaborating on this overview, I argue in this section that mobilisation around the governance of emerging technology, particularly AI, has thus far been situated in a digital rights and technology-driven agenda that has foregrounded individual rights and focused on the nature of the technology itself. Lacking from this agenda has been a more substantial engagement with collective rights and the actual conditions of injustice and lived experiences of struggle within which technology is embedded. The labour movement has an important role to play bringing such a perspective forward within the AI governance space.

Initial concerns over the mass generation and analysis of data collection have tended to highlight issues of surveillance and privacy, prominent in public debate particularly in the immediate aftermath of the Snowden leaks first published in 2013 (Hintz, Dencik and Wahl-Jorgensen 2018). In part, these events made clear the limitations of existing legislation around privacy, and the need for more oversight in the handling and processing of data by different actors. This saw the flourishing of a range of technology and policy initiatives aimed at restricting data gathering, such as the development of privacy-enhancing tools, mainstreaming the use of encryption and lobbying around anti-surveillance issues (Dencik, Hintz and Cable 2016). These have advanced important repertoires for resistance that directly challenge the power relations of data-driven surveillance and have provided avenues for individuals to manage aspects of their digital engagement. However, the advancement of technological self-defence as a governance frame is also limited by the onus on the individual user to protect their own privacy. As Ruppert, Isin and Bigo (2017) describe it, many accounts of data politics are premised on an ontology of 'hyper-individualism' that nurtures a suggestion that 'ultimately it is up to you to change your behaviour to protect yourself from the dark forces of the internet'.

In translating some of the concerns of anti-surveillance resistance into regulation, the protection of personal data has been a particularly noteworthy frame for governance, such as the approach to the General Data Protection Regulation (GDPR) adopted by the EU in 2018. The premise is that individuals should be able to claim some rights with regards to information collected about their person, and that collecting such information requires some form of consent. In this sense, it privileges the individual data subject and understands the protection of personal data as distinct from, but complementary to, individual privacy. The GDPR is relatively broad in scope but it is worth noting that issues pertaining particularly to the workplace and the processing of data on workers were excluded from this regulation in its final stages (Colclough 2020). Rather, the GDPR predominantly favours an understanding of data subjects as individual citizens and consumers that are afforded certain rights about their ability to access, challenge and limit data collected about their person by private companies and parts of the public sector.

Although the GDPR has paved the way for engaging with data-centric technology in a broader sense, questions remain about both its scope and enforceability. Perhaps in part as a response, much attention and resources have been dedicated to advancing 'data ethics' and 'AI ethics' in recent years as alternative and complimentary governance frameworks. This field has engaged a range of different streams of thought and practice, some of which continue a long-standing tradition of computer ethics while changing the level of abstraction of ethical enquiries from an information-centric to a data-centric one (Floridi and Taddeo 2016). That is, the focus shifts from a concern with how to treat information as an input and output of computing to a focus on how people access,

analyse and manage data in particular, not necessarily engaging any specific technology but what digital technology manipulates (Taylor and Dencik 2020). Often this has privileged concerns with the responsible handling of data that considers risks to privacy, forms of discrimination and abuse, ensuring transparency and accountability. In translating this into practice, we have seen the proliferation of various initiatives across industry, government and civil society framed under 'ethics' that set out different guidelines and procedures that attend to the development, handling and deployment of data-centric technologies, particularly AI. Government initiatives such as the UK's Centre for Data Ethics and Innovation and the establishment of high-level expert groups on ethics within the EU have advanced some avenues for outlining ethical concerns in relation to technology, whereas civil society actors have turned to data ethics as a way to advance data developments 'for good' across a range of contexts. Of particular note has been the active engagement by the technology sector itself in this governance frame, swiftly setting up associations, creating guidelines and codes for the responsible handling of technological innovation. An early offering came in the form of the Partnership on Artificial Intelligence to Benefit People and Society set up by Amazon, Google, Facebook, IBM and Microsoft in 2016 as a non-profit organisation to advance 'best practices and public understanding'. Most of these companies have also subsequently attempted to set up their own ethics boards, sometimes in partnership with academics, with varying degrees of success (Naughton 2019).

While a focus on data and AI ethics has foregrounded some prominent concerns about data collection and use in a way that shifts the onus of responsibility onto developers and the data controller, it is not clear that these initiatives have resulted in any real intervention. Government entities have predominantly been set up as nominal oversight bodies without any real teeth to interfere, leaving civil society actors having to levy at the abstract level of principles and rely on the goodwill of the industry to uphold them. Corporate data ethics initiatives, meanwhile, have focused on 'micro-ethics', an orientation around the individual practitioner, and an emphasis on compliance that avoids any fundamental engagement with the bottom line or premise (Taylor and Dencik 2020). In some instances, this has led to accusations of 'ethics-washing' (Wagner 2018), allowing for technology companies to engage with public concerns about their activities, while continuing to avoid regulation or any major challenge to the business models that sustain them. Moreover, by actively capturing the ethics space, the very players who are creating, developing and directly profiting from these technologies have also been the ones dictating the terms upon which we are to understand both the nature of problems and what might be suitable responses. Unsurprisingly, therefore, the application of ethical frameworks within the technology sector has tended to concern itself with the actual data-sets or algorithms themselves, positing that the causes of harms that emerge from AI can be traced to 'errors' or 'bias' in the design and

application; causes that essentially have technological solutions, preferably through further data collection and algorithmic sophistication. We see this for example with the growing industry that now concerns itself with 'fairness' in the design of systems, creating more inclusive data-sets and algorithms that can account for more diverse experiences, or the development of 'bias mitigation' tools (Zelevansky 2019). Such projects have drawn attention to some of the contentious assumptions that are embedded in the design of technological systems, but have also been accused of advancing technical fixes that serve to legitimise the industry (Gangadharan and Niklas 2019).

The growing debate surrounding ethical challenges and the bias of algorithmic processes has helped spur on an engagement with data-driven technologies as socio-technical systems that have an impact on people's lives. Some of this is evident in emerging forms of regulation on AI, for example, the emphasis on 'Trustworthy AI' and a risk-based approach to minimising harms in AI systems at EU level (Niklas and Dencik 2020). It has also been prevalent in discussions on the future of work, for example, by attending to the ways in which hiring systems or other parts of automation in human resources might discriminate against particular groups (Ajunwa 2019; Graham et al. 2020). However, concerns about ethics washing and the tendency towards technical fixes have led to calls to centre rights, and particularly human rights, more firmly within these discussions. Drawing on human rights legislation in AI governance debates goes beyond issues of privacy and the protection of personal data whilst providing a sturdier point of reference than abstract principles of ethics and fairness. Using international human rights as a frame in relation to the governance of AI details the specificity of potential harms by linking them to particular rights, such as the right to freedom of association or the right to a fair trial, that can apply to different parts of social life (HRBDT 2020). These assertions of rights can help inform impact assessments, for example, when new AI systems are being developed or deployed (Jørgensen et al. 2019; Jansen 2020). By relying on universal terms of reference, a human rights framework is also effective for advocacy as an internationally recognised agreement, however much this may not play out in practice. A recent court case brought forward by NGOs in the Netherlands, for example, to challenge the use of data-centric technology in the welfare sector won on the basis that it was considered an infringement on human rights and supported on-going efforts by the human rights community to demand assessments of AI systems beyond the required initial data protection impact assessment (Toh 2020).

Governing AI from a human rights perspective can therefore provide an avenue for a more holistic engagement with data-driven systems that considers a broad range of rights that pertain to people's lives. However, the notion of international human rights has historically struggled to translate into successful concrete action, often seen to be at the whims of geopolitical concerns and international relations. Moreover, as a framework, it has traditionally centred on the individual and civil and political rights in a way that has struggled to

account for collective rights and that has tended to neglect social and economic rights (Alston 2005). In general, in line with how governance debates on AI have predominantly been approached, there is a lack of political mobilisation that can contend with the power relations that are inherent in the advancement of AI and that engages with datafication as a political economic regime. The absence of labour concerns is an important aspect in this respect. In part, this is a result of a deliberate exclusion of worker voices in governance debates, both in how they have been organised as well as in terms of institutional structures surrounding AI governance. It is noteworthy how even discussions on AI in relation to the future of work have been advanced around industry and citizen concerns, but with an absence of unions or other worker associations. At the same time, the lack of labour perspectives in relation to AI governance is also indicative of a labour movement that has been slow to engage with questions of data and data-centric technologies on a societal scale. As I will go on to argue, unions and labour activists have predominantly (understandably) focused on immediate concerns regarding the changing nature of work and the workplace, particularly with the advent of the gig economy and automation. This focus has brought to light some significant issues with regards to the power of technology companies in setting the terms of work and workers' worth, but it has not translated into mobilisation efforts around AI governance, the way in which AI positions labour in relation to capital, and how this informs the advancement of social justice. Instead, as I will go on to discuss below, other actors and communities that could benefit from alliances with the labour movement have driven mobilisation around this kind of data justice.

Data Justice and Labour

Privileging a concern with social justice in relation to datafication, a framework of data justice, is part of a notable shift in the framing and understanding of what is at stake with the growing development and use of data-centric technologies such as AI. In part a response to the rather limited interpretations that have informed governance debates thus far, data justice advances a research agenda that seeks to change the terms of the debate, situating data in relation to structural inequalities and histories of domination (Dencik, Jansen and Metcalfe 2018). This has, in some interpretations, led to articulations of principles to underpin data governance that can better account for such inequalities (Heeks 2017; Taylor 2017), or practices in the handling of data that make asymmetries in the representation and power of data explicit (Johnson 2018). In other interpretations, conceptions of justice have been foregrounded in the development of design, calling for more participatory processes that involve communities to build alternative infrastructures that empower rather than oppress marginalised groups (Costanza-Chock 2018). This is in line with a more general recognition of the need to shift what voices are centred in any understanding

of what is at stake with datafication and challenge the current constitution of the decision-making table. Gangadharan and Niklas (2019), for example, have made the case for 'decentering' technology in data justice debates and instead situate technology within systemic forms of oppression, meaning that harms that emerge from data-driven systems need to be articulated by those who are predominantly impacted and understand the history of such oppression.

We have seen some of these tenets of data justice debates translate into different forms of activism and campaigning. The Center for Media Justice in the United States, for example, have created a Data Justice Lab dedicated to thinking through ways to bridge research, data, and movement work relating to issues like surveillance, carceral tools, internet rights and censorship. The Detroit Digital Justice Coalition has worked with local residents to identify harms that emerge through the collection of data by public institutions, situating these in the context of on-going criminalisation and surveillance of low-income communities, people of colour and other targeted groups. In some instances, these activities have foregrounded a politics of refusal (Gangadharan 2019) that advance an abolitionist agenda as articulated by groups such as the StopLAPD Spying Coalition and the Data for Black Lives initiative. Here, the focus is not to make technologies more efficient, but rather to recognise how technology has meaning and impact in relation to the inequalities manifested in capitalist exploitation and a history of state violence. The call is to divest resources into oppressive data systems and to 'abolish big data' that is used to measure and profile people, and instead reinvest in communities (Benjamin 2019; Crooks 2019). In the context of environmentalism, the Environmental Data & Governance Initiative (EDGI) has preserved vulnerable scientific data in the aftermath of the US election of Trump in 2016, and in the process developed an 'environmental data justice' framework that considers the politics, generation, ownership and uses of environmental data. Similarly, in the context of municipalities, efforts to engage citizens in the control over urban public data have been central to the 'Roadmap to Technological Sovereignty' advanced in cities such as Barcelona, outlining ways to challenge the monopolisation of data by a few corporate platforms. These efforts tend to focus on forms of governance that include formats such as data trusts or data commons and that allow for platforms to be managed by the city itself (Tieman 2017; Fuster 2017).

Concerns with data justice therefore translate into a range of different debates and practices that find expression across areas of society. Yet whilst these activities speak to shared interests towards addressing inequalities, redistribution and conditions of injustice, labour concerns have often been on the margins of these efforts or have been pursued in siloes. There has been a considerable effort to address the issue of potential job losses in the face of automation, for example, with unions pushing for more avenues to pursue reskilling within jobs, changing union structures to accommodate for non-trade or non-sector specific memberships, and advocating for more support for transitioning

within workplaces (Colclough 2020). Concerns with job losses have also mobilised greater support for some form of universal basic income or other kinds of safety nets for workers who are displaced by automation (Standing 2019). More recently, there has been a growing focus on how technologies such as AI impact not just displacement, but the quality of work. This includes efforts to apply the GDPR in the workplace as a way to address issues of labour protection (Aloisi and Gramano 2019) and the potential for collective rights to form a greater part of the AI and data governance debate. De Stefano (2018), for example, has argued for the need for a 'human-in-command' approach that would involve collective regulation and social partners in governing automation and the impact of technology at the workplace. Similarly, some unions are pushing for 'new technology agreements' (NTAs) to form part of collective bargaining agreements in workplaces that have union representation. Under the terms of these, new technology will only be introduced with the agreement of the trade union, and if the employer agrees to reinvest any cost savings to provide new jobs elsewhere in the organisation (Cole 2019).

Furthermore, spearheaded by smaller and independent unions, the labour movement has been increasingly active in the area of platform labour and the gig economy (not all of which deploy AI), focusing particularly on the nature of these platforms as employers. Unions such as the Independent Workers of Great Britain (IWGB) and what is now the App Drivers and Couriers Union (ADCU) have successfully challenged the status of gig workers, such as those driving for Uber, as self-employed rather than as employees. Out of these struggles, there has also been a growing engagement with the collection and use of data by these platforms to manage or direct workers employed by them. Worker Info Exchange, for example, a non-governmental organisation that grew out of organising Uber drivers within the IWGB, explicitly concerns itself with 'data rights' and the ability for workers to access data collected about them as a way to increase transparency about their management. In parallel to this, a growing mobilisation effort has formed around alternative models of platform labour that draws inspiration from the cooperativist movement. Platform cooperativism as an idea and practice has, in the space of a few years, grown globally as a response to the dominance of platform capitalism. Under this model, platforms are generally based on decentralised forms of governance in which workers themselves own the platform and/or set the terms for how it should be run. Importantly, these have sometimes been established with the direct support of labour unions and have been an avenue through which to engage the labour movement more directly in data debates. As Scholz (2017) has argued, platform cooperativism should not be considered a technological solution but a 'mindset' that includes technological, cultural, political and social changes, bringing together different actors and stakeholders.

The growing arena of data justice therefore has much scope to incorporate labour concerns in how to articulate both what is at stake with datafication

as well as possible responses. In terms of mobilisation, the challenge remains how to integrate issues of data-centric technologies like AI into a broader understanding of the place of technology in advancing social justice for all. As I go on to argue below, this needs greater cooperation and solidarity between the labour movement and other social movements in order to strengthen and advance the kind of political engagement with AI governance that a data justice agenda demands.

Towards Data Justice Unionism

As I have argued so far, dominant governance frameworks relating to data and AI have overwhelmingly responded to concerns with implications for people as citizens and consumers over and above people as workers. Moreover, they have predominantly followed a liberal orientation that has centred on individual rights and ethics. This is perhaps unsurprising considering that much of the mobilisation efforts engaged in questions of data and AI have been those stemming from digital rights and civil liberties concerns. Whilst this has mobilised a number of key issues that have been translated into important legislation, particularly in Europe, such as the GDPR and more recently, the White Paper on EU Strategy for AI, such frameworks have some important limitations for engaging with the broader implications of the turn to data infrastructures across social life. The growing activities surrounding data justice have broadened and shifted the terms of engagement in ways that seek to address some of these limitations. Yet labour concerns regarding AI have often been pursued separately from these activities. This is a challenge for broad political mobilisation as the labour movement has historically played a significant role in connecting transformations in work to broader questions of society that have relevance for the governance of data and AI. In this final section, I therefore make the case for data justice unionism to be considered as a part of social justice unionism focused on engaging labour perspectives in the debate on AI governance, including a concern with the interests driving datafication, the forms of social and economic organisation that enable them, and how they might be challenged.

Social justice unionism has become an increasingly popular approach within the labour movement and advocates for unions to collaborate with social movements in order to work towards wider goals and the resolution of workplace issues. The argument is that unions should accept the reality that there are multiple forms of oppression and that they should work with groups in coalitions to challenge them (Healy et al. 2004; Dencik and Wilkin 2015). This often means an emphasis on more networked and informal relationships between individuals, groups and organisations that combine to undertake forms of collective action. A prominent example is the protests in Seattle in 1999 that brought together a diverse array of social movement groups with trade unions to protest against the specifics of the WTO proposals but also against the

growth of corporate power and the destruction of democracy, a much broader theme uniting these movements and providing grounds for a coalition to be built on labour-related interests (Wilkin 2000). More recently, the Occupy movement brought together union organisers with a range of different social movement groups to draw attention to uneven wealth distribution and income inequality that formed grounds for demands of a living wage and job security in precarious sectors historically neglected by mainstream trade unions (Dencik and Wilkin 2015). These kinds of mobilisations focus on improving the lives of working people through engaging with class-wide or social justice demands, which include traditional 'bread and butter' issues, but are not limited to them (Behrent 2015).

Social justice unionism therefore resonates with the argument that unions need to present a picture of a good society that can be built through cooperation, solidarity and mutual aid alongside other progressive social movements. This understanding of unionism has gained particular relevance in light of declining labour power coupled with the nature of the global challenges confronting working people. Climate change, for example, presents a complex challenge for the labour movement that cannot be fought along traditional lines. The recent push for a Green New Deal and a Just Transition is in part an attempt to foster new alliances between movements concerned with labour and the environment. This includes unions and campaigners teaming up to advance concrete alternatives to a fossil-fuel-based economy, while advocating that the government take action. Indeed, Bergfeld (2019) has argued that what is needed is a kind of 'climate-justice unionism' to address the intertwined social and ecological crises in a holistic way. Such an approach would use the organisational and institutional leverage of unions to rebuild workers' power at the workplace and at company level to regulate from below, whilst at sectoral level use collective agreements to refit companies, with the goal of reducing carbon emissions and enhancing labour standards. Importantly, climate-justice unionism would involve organising 'the whole worker' (McAlevey 2016) in which issues are not only rooted in workplaces but also in communities and society, such as the disproportionate impacts of exposure to and taxation of CO_2 emissions.

A concern with data justice in this context provides a further component that needs to be part of these efforts to address issues confronting working people within and beyond the workplace, privileging a view of unions as working in solidarity with other groups. The engagement with questions of data from a social justice perspective cannot be confined to digital rights, civil liberties or technologists, but requires a coalition of individuals, groups and movements. Unions have an important role to play in this respect, not just by explicitly connecting digital rights to social and economic rights, but perhaps more importantly by articulating concerns that are rooted in people's lived experiences of AI. This can help mobilise around actual and on-going social struggles informed by those who are the most impacted as a key component of current data justice debates. Furthermore, unions can leverage power within

the workplace to address the deployment of AI systems that can inform governance debates around AI more broadly. McQuillan (2020), for example, has advocated for workers and people's councils to advance situated knowledge as a form of interference in relation to AI, drawing on the social histories of workplaces and communities. Unions might also help to organise workers within technology companies as pursued by groups such as the Tech Workers Coalition that sees labour organising as a way of advancing solidarity between software engineers and social justice movements to undermine the development of harmful technologies. More broadly, data justice unionism provides an avenue for mobilising around AI that engages with the political economy upon which its advancement relies. By attending to the operations of capital in datafication and its positioning of labour, we are forced to move away from a focus on the responsible handling of data or to turn to the realm of moral conscience or market solutions as governance responses. Instead, we need to contend with the actual conditions of injustice that shape contemporary social relations, how AI shifts dynamics of power and approach questions of technology as part of alternative visions for how society should be organised. This requires coordinated efforts between the labour movement and other social movements.

Conclusion

The advent of datafication has culminated in recent discussions on AI, bringing to light the significant ways in which data-centric technologies are intersecting with various aspects of social life. A particular area of concern is the way labour relations are transforming with the growing development of AI. This has often focused on the risk of job losses to automation and the changing nature of the workplace, both in standard and non-standard employment. It has also incorporated an analysis of the way labour, often side-lined or made invisible, is central to sustaining AI systems at the same time as the mode of capital advanced by AI undermines labour power by extending and empowering capital's abilities of assetisation, extraction and enclosure. Yet in mobilising governance frames to contend with datafication and AI, there has been a noticeable absence of workers' voices and labour concerns. Instead, dominant frameworks of AI governance have tended to focus on citizen and consumer rights that have centred on the individual and on the ethical considerations that need to inform design and deployment. Labour concerns, meanwhile, have been pursued in separate arenas that have tended to focus on specific aspects of work and the workplace, but that have often not connected with broader debates on data. As AI comes to have increasing significance for how society is organised, there is a need to foster greater cooperation between different movements and groups to engage with data justice in a meaningful way. Unions can benefit from a more holistic form of organising that extrapolates workplace issues into society in order to gain relevance and advance the interests of their

membership. Engaging with data issues needs to be part of that organising. At the same time, unions bring particular leverage to existing efforts to advance social justice concerns in the context of AI by privileging lived experiences and foregrounding collective social and economic rights. Data justice unionism, therefore, is a way of pointing to the potential for a broader political mobilisation around the role of AI in society that involves the efforts and voices of actual working people. Such a mobilisation is urgently needed if we are to contend with the shifting power dynamics that are being advanced by the growing reliance on AI in our lives.

Acknowledgement

The research for this chapter was made possible with funding from a European Research Council Starting Grant for the project DATAJUSTICE (grant no. 759903).

References

Ajunwa I. 2019. Platforms at Work: Automated Hiring Platforms and Other New Intermediaries in the Organization of Work. In Greene, D., Steve P. S. P. Vallas and A. Kovalainen (Eds.), *Work and Labor in the Digital Age* (Research in the Sociology of Work, Vol. 33 , pp. 61–91). Bingley: Emerald Publishing.

Aloisi, A. and Gramano, E. 2019. Artificial Intelligence is Watching You at Work. Digital Surveillance, Employee Monitoring and Regulatory Issues in the EU Context. *Comparative Labor Law & Policy Journal,* 41(1).

Alston, P. 2005. Assessing the Strengths and Weaknesses of the European Social Charter's Supervisory System. In G. de Búrca, B. de Witte and L. Ogertschnig (Eds.), *Social Rights in Europe*. Oxford: Oxford University Press.

Andrejevic, M. 2019. *Automated Media*. New York and London: Routledge.

Behrent, M. 2015. The Meaning of Social Justice Unionism. *SocialistWorker.org*. Available at: https://socialistworker.org/2015/05/18/the-meaning-of-social-justice-unionism

Benjamin, R. 2019. *Race After Technology*. Cambridge: Polity.

Bergfeld, M. 2019. From Fridays for Future to a Global Climate-Justice Unionism? *Social Europe*. Available at: https://www.socialeurope.eu/from-fridays-for-future-to-a-global-climate-justice-unionism

Colclough, C. 2020. Empowering Workers in the Digital Future. Podcast. *Exponential View with Azeem Azhar*. Available at: https://www.exponentialview.co/podcast

Cole, P. 2019. Working with Unions to Introduce New Technology. *People Management*. Available at: https://www.peoplemanagement.co.uk/experts/legal/working-with-unions-to-introduce-new-technology

Costanza-Chock, S. 2018. Design Justice, A.I., and Escape from the Matrix of Domination. *Journal of Design and Science* 3(5).

Couldry, N. and Mejias, U. 2018. Data Colonialism: Rethinking Big Data's Relation to the Contemporary Subject. *Television and New Media*, 20(4), 338.

Crooks, R. 2019. What we Mean When we Say #AbolishBigData2019. *Medium*, 22 March. Available at: https://medium.com/@rncrooks/what-we-mean-when-we-say-abolishbigdata2019-d030799ab22e

Dencik, L., Hintz, A. and Cable, J. 2016. Towards Data Justice? The Ambiguity of Anti-surveillance Resistance in Political Activism. *Big Data & Society*, 3(2): 1–12. DOI: https://doi.org/10.1177/2053951716679678

Dencik, L., Jansen, F. and Metcalfe, P. 2018. A Conceptual Framework for Approaching Social Justice in an Age of Datafication. Working Paper, DATAJUSTICE project. Available at: https://datajusticeproject.net/2018/08/30/a-conceptual-framework-for-approaching-social-justice-in-an-age-of-datafication

Dencik, L. and Wilkin, P. 2015. *Worker Resistance and Media: Challenging Global Corporate Power in the 21st Century*. London and New York: Peter Lang.

De Stefano, V. 2018. 'Negotiating the Algorithm': Automation, Artificial Intelligence and Labour Protection. Employment, Working Paper No. 246, International Labour Office.

Floridi, L. and Taddeo, M. 2016. What is Data Ethics? *Philosophical Transactions of the Royal Society*, 374(2083). Available at: http://rsta.royalsocietypublishing.org/content/374/2083/20160360

Fuster, M. 2017. Analytical Framework of the Democratic and Procommons Qualities of Collaborative Economy Organizations. DECODE blog, 6 October 2017.

Gangadharan, S. P. 2019. What Do Just Data Governance Strategies Need in the 21st Century? Keynote at Data Power Conference, 12- 13 September, Bremen, Germany.

Gangadharan, S. P. and Niklas, J. 2019. Decentering Technology in Discourse on Discrimination. *Information, Communication & Society*, 22(7): 882–899.

Graham, L. et al. 2020. Artificial Intelligence in Hiring: Assessing Impacts on Equality. *Institute for the Future of Work*. Available at: https://static1.squarespace.com/static/5aa269bbd274cb0df1e696c8/t/5ea831fa76be55719d693076/1588081156980/IFOW+-+Assessing+impacts+on+equality.pdf

Gray, M. and Suri, S. 2019. *Ghost Work: How to Stop Silicon Valley from Building a New Underclass*. Boston, MA: Houghton Mifflin Harcourt.

Healy, G. et al. (Eds.). 2004. *The Future of Worker Representation*. Basingstoke, UK: Palgrave.

Heeks, R. 2017. A Structural Model and Manifesto for Data Justice for International Development. *Development Informatics Working Paper Series*, No. 69.

Hintz, A., Dencik, L. and Wahl-Jorgensen, K. 2018. *Digital Citizenship in a Datafied Society*. Cambridge: Polity.

HRBDT. 2020. The Human Rights, Big Data and Technology Project. Available at: https://www.hrbdt.ac.uk

Jansen, F. 2020. Consultation on the White Paper on AI – A European Approach. Submission. DATAJUSTICE project. Available at: https://datajusticeproject.net/wp-content/uploads/sites/30/2020/06/Submission-to-AI-WP-Fieke-Jansen.pdf

Johnson, J. A. 2018. *Toward Information Justice*. Cham, Switzerland: Springer.

Jørgensen, R. F. et al. 2019. Exploring the Role of HRIA in the Information and Communication Technologies Sector. In: N. Götzmann (Ed.), *Handbook on Human Rights Impact Assessment*. Cheltenham: Edward Elgar Publishing.

Kellogg, K. C., Valentine, M. A. and Christin, A. 2020. Algorithms at Work: The New Contested Terrain of Control. *Academy of Management Annals*, 14(1): 366-410.

Mason, P. 2015. *Postcapitalism: A Guide to Our Future*. London: Allen Lane

McAlevey, J. 2016. *No Shortcuts: Organising for Power in the New Gilded Age*. Oxford: Oxford University Press.

McQuillan, D. 2020. AI After the Pandemic. *Medium*. Available at: https://medium.com/@danmcquillan/ai-after-the-pandemic-c603866a6ef8

Moore, P.V., Upchurch, M. and Whittaker, X. (eds) 2017. *Humans and Machines at Work: Monitoring, Surveillance and Automation in Contemporary Capitalism*. Basingstoke: Palgrave Macmillan.

Moulier Boutang, Y. 2011. *Cognitive Capitalism*. Cambridge: Polity Press.

Naughton, J. 2019. Are Big Tech's Efforts to Show it Cares About Data Ethics Another Diversion? *The Guardian*, 7 April. Available at: https://www.theguardian.com/commentisfree/2019/apr/07/big-tech-data-ethics-diversion-google-advisory-council

Niklas, J. and Dencik, L. 2020. European Artificial Intelligence Policy: Mapping the Institutional Landscape. Working Paper. DATAJUSTICE project. Available at: https://datajusticeproject.net/wp-content/uploads/sites/30/2020/07/WP_AI-Policy-in-Europe.pdf

Ruppert, E., Isin, E. and Bigo, D. 2017. Data Politics. *Big Data & Society*. July–December: 1–7. Available at: http://journals.sagepub.com/doi/abs/10.1177/2053951717717749

Sadowski, J. 2019. When Data is Capital: Datafication, Accumulation, and Extraction. *Big Data & Society*. January–June: 1–12.

Sadowski, J. 2020. The Internet of Landlords: Digital Platforms and New Mechanisms of Rentier Capitalism. *Antipode*, 52(2), 562–580.

Sánchez-Monedero, J. and Dencik, L. 2019. The Datafication of the Workplace. Working Paper. DATAJUSTICE project. Available at: https://datajusticeproject.net/wp-content/uploads/sites/30/2019/05/ReportThe-datafication-of-the-workplace.pdf

Scholz, T. (Ed.). 2013. *Digital Labor: The Internet as Playground and Factory*. New York and London: Routledge.

Scholz, T. 2017. *Uberworked and Underpaid: How Workers are Disrupting the Digital Economy*. Cambridge: Polity Press.

Srnicek, N. 2017. *Platform Capitalism*. Cambridge: Polity Press.

Srnicek, N. 2020. Data, Compute, Labour. *Ada Lovelace Institute*. Available at: https://www.adalovelaceinstitute.org/data-compute-labour

Srnicek, N. and Williams, A. 2015. I*nventing the Future: Postcapitalism and a World Without Work*. London: Verso Books.

Standing, G. 2017. *Basic Income: And How We Can Make It Happen*. London: Pelican Books.

Taylor, L. 2017. What is Data Justice? The Case for Connecting Digital Rights and Freedoms Globally. *Big Data & Society, 4(2), 1–14.*

Taylor, L. and Dencik, L. 2020. Constructing Commercial Data Ethics. *Regulation & Technology*, 1-10.

Thompson, P. and Briken, K. 2017. Actually Existing Capitalism: Some Digital Delusions. In: K. Briken, S. Chillas, M. Krzywdzinski and A. Marks (Eds.), *The New Digital Workplace: How New Technologies Revolutionise Work*, pp. 13, 241–26. London: Macmillan Education.

Tieman, R. 2017. Barcelona: Smart City Revolution in Progress. *Financial Times*, 26 October.

Toh, A. 2020. Dutch Ruling a Victory for Rights of the Poor. *Human Rights Watch*. Available at: https://www.hrw.org/news/2020/02/06/dutch-ruling-victory-rights-poor

Van Doorn, N. and Badger, A. 2020. Where Data and Finance Meet: Dual Value Production in the Gig Economy. Working Paper. *Platform Labor*. Available at: https://platformlabor.net/output/dual-value-production-gig-economy

Wagner, B. 2018. Ethics as an Escape from Regulation: From 'Ethics-washing' to Ethics-shopping? In E. Bayamlioglu, I. Baraliuc, L. A. W. Janssens and M. Hildebrandt (Eds.), *Being Profiled, Cogitas Ergo Sum*, pp. 84–90. Amsterdam: Amsterdam University Press.

Wark, M. 2019. *Capital is Dead. Is this Something Worse?* New York: Verso.

Wilkin, P. 2000. Solidarity in a Global Age – Seattle and Beyond. *Journal of World-Systems Research*, 6(1), 19–64.

Zelevansky, N. 2019. The Big Business of Unconscious Bias. *New York Times*. Available at: https://www.nytimes.com/2019/11/20/style/diversity-consultants.html

Zuboff, S. 2015. Big Other: Surveillance Capitalism and the Prospect of an Information Civilization. *Journal of Information Technology*, 30(1): 75–89.

Zuboff, S. 2019. *The Age of Surveillance Capitalism*. London: Profile Books.